# Requirements Analysis

Requirement analysis is the process of defining the expectations of the users for the application that is being built, which in this case is the Student Organization System. When developing the requirement analysis section of this document our team had to brainstorm ideas then solidify those ideas and finally mature those ideas. We achieved this by first identifying the boundaries, controls and entities present in the system we plan to design. Afterwards, we translated use cases into scenarios to put ourselves in place of the future user of the system. This strategy aided us in seeing the system from a user’s perspective and allowed us to strengthen the overall model that we have created for our system. Although we brainstormed many scenarios, some of them are presented below to show how our system was developed.

Furthermore, after developing these scenarios we then created both static and dynamic UML diagrams. UML diagrams allow us to shape our model and display to the customer the basis in which our system was established upon. In fact, we have object, class and sequential diagrams below presenting the instantiation, abstraction and flow that our system will follow once developed. Our team truly believe that our requirement analysis will allow for smooth transition into the development of the SOS system.

## Scenarios

### Scenario: SOS16 - Creating an organization

A user named John Doe is logged into the system. John is on the organization page. John is part of no clubs but wants to create his own club. John attempts to create a club with the following parameters:

* Organization Name: “The Doe Crew”
* Organization Description: “A bunch of people excited for fishing.”
* Requirement for joining: “Anyone with an interest in fishing can join.”
* Privacy of the organization: PUBLIC

He submits his request and the page refreshes and shows him the newly created club with the parameters he provided.

### Scenario: SOS04 - Attending an event

A user named Patricio Clarke is logged into the system. Patricio is on the events page. Patricio is part of the organization “The Doe Crew” and the system provides a list of events that he has signed up for. The system shows one event called “Deep sea fishing.” Patricio is currently at the event and he decides to let the system know that he is at the event by clicking “I’m here.” After clicking on the button Patricio receives a message claiming that his attendance has been noted.

### Scenario: SOS14 - Registration

A user named John Day wants to join the SOS community. He enters the link to the log in page of the website and he clicks register and enters the following information:

* User Name = jday005
* Email = [jday005@fiu.edu](mailto:jday005@fiu.edu)
* Password = abc123
* Confirm Password = abc123

John clicks on register and the site then takes a couple of seconds to verify his registration. John is then sent to the home page.

### Scenario: SOS17 - Cancel an Event

An organizer named Juan Ciervo with event manager privileges is logged into the system and is in the event page. Juan sees all the events his organization is hosting which include “Hiking the Himalayas” and “Skydiving.” Juan Ciervo wants to cancel an the “Skydiving” event for his organization “The Ciervo Squad.” Juan clicks on view event description and then he clicks on cancel event. Juan is certain that the organization cannot host this event, so he confirms the cancellation request. Juan then sees that the event is no longer visible therefore it has been cancelled.

### Scenario: SOS12 – Log in

A user named Nica Perez is not logged into the system but has an account with the SOS. Nica is currently on the log in screen of the website and she puts in the following information into the log in form:

* Email: [npere203@fiu.edu](mailto:npere203@fiu.edu)
* Password: \*\*\*\*\*\*\*\*\*\*\*

The system allows her to log in as her information is correct. She ends the scenario at the homepage.

### Scenario: SOS21 - Create Event

An organizer Mohammad Lee is logged into the system and he has event manager privileges. Mohammad is currently in the administration page of the organization he is a part of, “The Lees.” Mohammad wants to create an event, so he clicks on the create event button. A form appears and Mohammad inputs the following parameters:

* Event name: “Uphill biking”
* Event date and time: “10/05/2019 12:00:00 PM”
* Event location: “12345 SW 678 TER Kyoto, Japan 910112”
* Event Type: NORMAL
* Event Visibility: VISIBLE
* Event Duration: 1 hour

Mohammad publishes the new event he created, and the event is created successfully.

### Scenario: SOS02 - Grant Organizer Role

An organizer Juana Cierva is logged into the system and she has the role manager privilege. Juana is part of the organization “The Ciervo Squad.” Juana is currently on the organization management view. Juana want to grant a role to another member of “The Ciervo Squad,” Bob Swanson. Using the invitation menu Juana enters the following data:

* Member Name: “Bob Swanson”
* Organizer Title: “Moderator”
* Powers and Privileges: KICK

Juana submits the request to grant the role to Bob. Bob is then notified and Juana now sees that Bob owns the role of Moderator within “The Ciervo Squad.”

### Scenario: SOS07 - Edit Profile

A user Janet Lake is logged into the system and wants to change her account privacy. Janet clicks on the edit profile button and she sees the current profile settings she has on the page and is able to edit the following fields:

* Email: [jlake009@fiu.edu](mailto:jlake009@fiu.edu)
* Phone Number: (123) – 456-7890
* Privacy: Public

Janet changes her privacy to private and then submits the data. The page refreshes and shows a confirmation message displaying that her account is now private.

### Scenario: SOS18 – Log out

A user Bob Hope wants to log out of the system. He presses log out from the current page that he is in and he successfully logs out of the system.

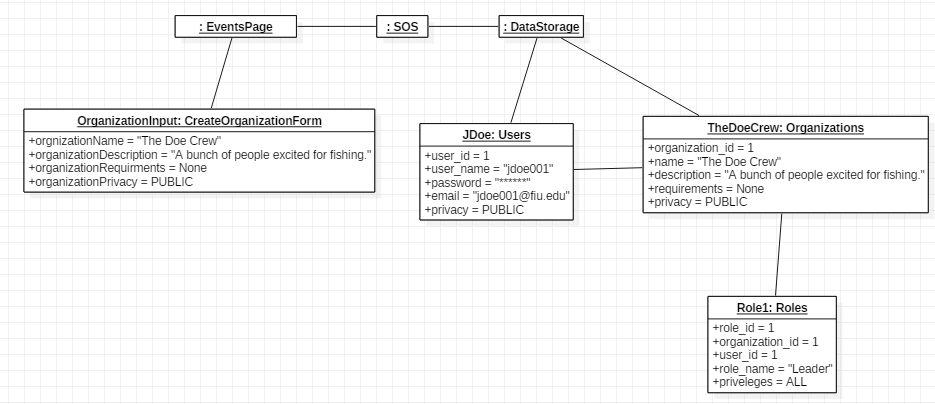
### Scenario: SOS10 - Access Events by Location

A user Lolly Tates is logged into the system. Lolly is in the event page. Lolly allows the webpage to access her location (12345 SE 342 Ter 33029). After confirming, Lolly sees an event, “Volleyball tournament” occurring near her location.

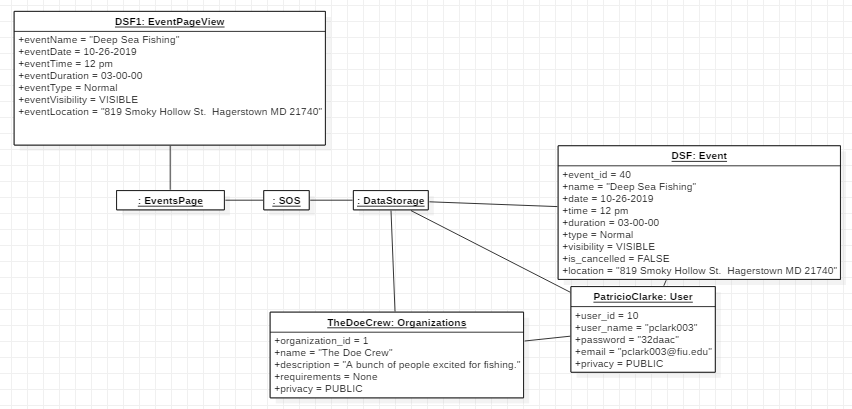
## Static Model

A scenario is defined as a “scene that illustrates some interaction with a proposed system.” Scenarios are essential for capturing the system, as viewed from the outside, by a user, using specific examples. As a result, our team developed 10 scenarios for the 10 use cases that we will be implementing throughout the semester to understand the purpose and limitations of our system. These scenarios allowed us to create instances of a particular use of our system and consequently they were depicted as object diagrams which excel in displaying instances of classes in a system. The scenarios inspired the creation of the class diagram displayed after the object diagrams. These class diagrams reflect the scenarios and ensure that there are enough functional classes in the SOS to meet the needs of any user. It is safe to say that the scenarios allowed us to mature our understanding of the functionality of certain pieces of the system.

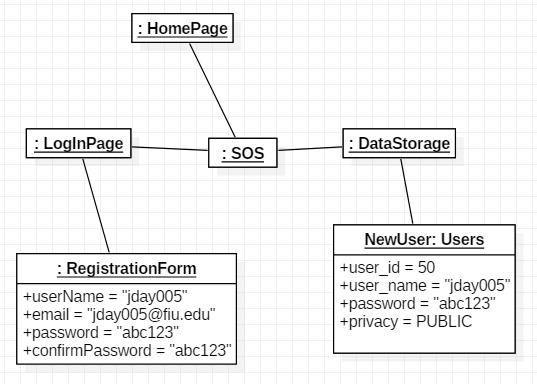
### Object Diagram for Scenario 5.1.1



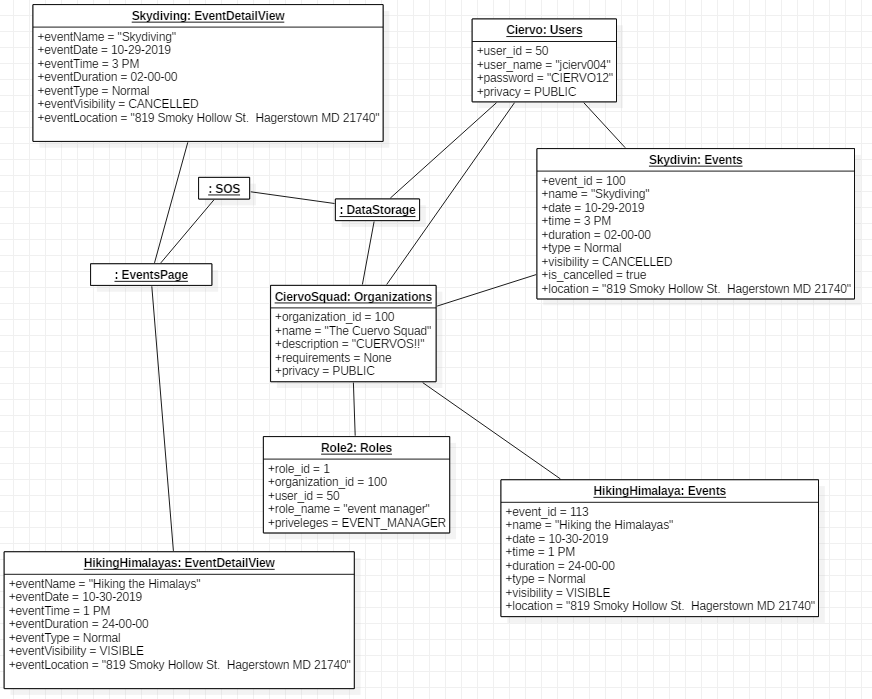
### Object Diagram for Scenario 5.1.2



### Object Diagram for Scenario 5.1.3



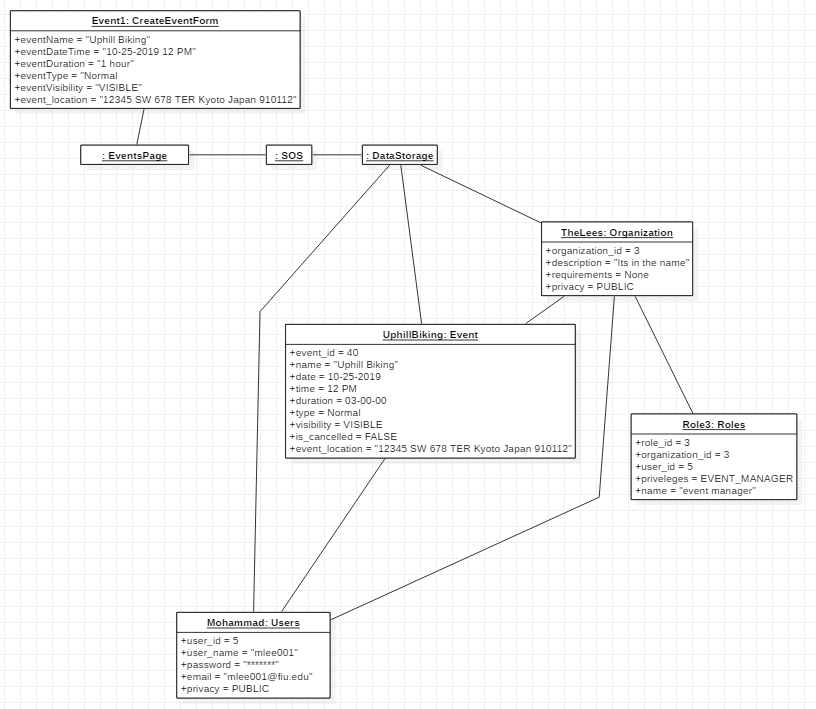
### Object Diagram for Scenario 5.1.4



### Object Diagram for Scenario 5.1.5

PLACEHOLDER

### Object Diagram for Scenario 5.1.6



### Object Diagram for Scenario 5.1.7

PLACEHOLDER

### Object Diagram for Scenario 5.1.8

PLACEHOLDER

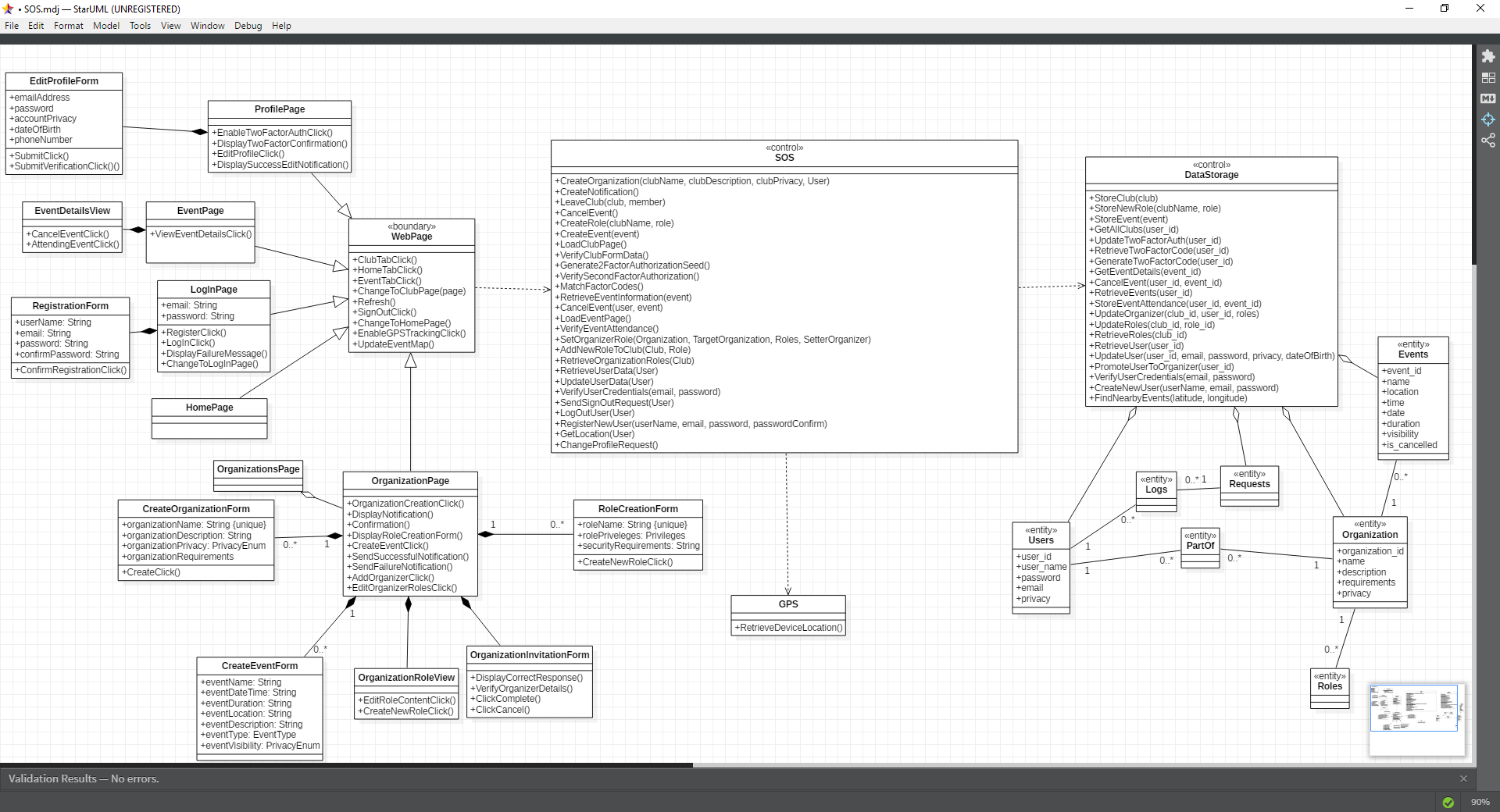
### Object Diagram for Scenario 5.1.9

PLACEHOLDER

### Object Diagram for Scenario 5.1.10

PLACEHOLDER

### Class Diagram



### Sequence Diagrams

A sequence diagram models the interactions between objects in a single use case. As presented below the following sequence diagram illustrate the flow of a use case with the interaction of the actor, webpage, system and data storage. Sequence diagrams aid in displaying how different part of the SOS webpage interact with each other to carry out a user desire. In fact, sequence diagrams describe the high level of how a use case is supposed to execute in the system through function calls within the boundaries, control and entities. Each sequence diagram below represents the different actors found in the use case and shows the workflow that we plan to implement for the SOS system.

